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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,634	07/23/2003	Kyung-Geun Lee	1293.1926	6894

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EXAMINER	
LAMB, CHRISTOPHER RAY	
ART UNIT	**PAPER NUMBER**
2627	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/624,634	LEE ET AL.	
	Examiner	Art Unit	
	Christopher R. Lamb	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 December 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-14, 22-24, and 28-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Kondo (US 5,177,720).

Regarding claim 1:

An optical information storage medium (Fig. 8), comprising:

a user data area (column 4, lines 1-15); and

an area other than the user data area (column 4, lines 1-15), comprising:

a reproduction-only area (it is a write-once disc, so any area already written to is a reproduction-only area); and

a recordable area wherein new data about a disk state is recorded in the recordable area if a recording of user data is completed (column 7, lines 35-55).

Regarding claim 2:

In Kondo the new data about the disk state includes one or more data selected from an address of an area containing newly recorded optimum power control data, an address of an area containing most recently recorded drive data, and an address of an area containing most recently recorded user data, or data representing whether an

additional recording is possible (it is the address of the area containing most recently recorded user data: column 7, lines 35-55).

Regarding claim 3:

In Kondo the area other than the user data area corresponds to the lead-in area, and the new data about the disk state is recorded in the recordable area as part of the lead-in area (column 7, line 65 to column 8, line 25).

Regarding claim 4:

In Kondo, when data about the disk state is updated, the new data about the disk state is recorded in an area next to an area containing most recently recorded disk state data (column 7, line 65 to column 8, lines 25).

Regarding claim 5:

In Kondo, when data about the disk state is recorded as a combination of bits of at least one byte (inherent: the address must be at least a byte long).

Regarding claim 6:

In Kondo, the area other than the user data area corresponds to a lead-in area, and the recordable area where teh new data about the disk state is recorded is a part of the lead-in area (column 7, line 65 to column 8, line 25).

Regarding claim 7:

In Kondo, when data about the disk state is updated, the new data about the disk state is recorded in an area next to an area containing most recently recorded disk state data (column 7, line 65 to column 8, line 25).

Regarding claims 8-14:

These are method claims corresponding to medium claims 1-7. All elements positively recited have already been discussed with regards to those earlier claims.

Regarding claim 22:

Kondo discloses a method of accessing an area on an optical storage medium where new user data is to be recorded, comprising:

recording, in a predetermined area of the optical storage medium, data about a disk state, when a recording of user data is completed (column 7, line 15 to column 8, line 25),

wherein the data about the disk state includes at least one of an address of an area containing newly recorded optimum power control (OPC) data, an address of an area containing most recently recorded drive data, an address of an area containing most recently recorded user data, and data representing whether an additional recording is possible after the recording of user data is completed (it is the address of the area containing most recently recorded user data: column 7, lines 35-55); and

when new user data is to be recorded, accessing an area on the optical storage medium where the new user data is to be recorded, using recorded data about the disk state (column 7, line 15 to column 8, line 25).

Regarding claim 23:

In Kondo the predetermined area of the optical storage medium is a recordable area of a lead-in area on the optical storage medium (column 7, lines 40-55).

Regarding claim 24:

In Kondo the data about the disk state is updated if a recording of user data is completed (column 7, line 7 to column 8, line 25), and updated data about the disk state is recorded in an area different from the predetermined area (eventually all the disk state information is recorded in the table of contents, column 9, lines 20-50).

Regarding claim 28:

Kondo discloses a method of organizing a recording of updated data on an optical information storage medium, comprising:

recording in a recordable area new disk state data in a different area of the recordable area than present disk state data (column 7, line 65 to column 8, line 25); and

recording in the recordable area data representing the possibility of additional recording after completion of recording is recorded (this is inherent, as discussed in the rejection of claim 24),

wherein new data about a disk state is recorded in the recordable area if a recording of user data is completed (column 7, lines 35-55).

Regarding claim 29:

In the method of Kondo, the different area of the recordable area is an area next to the area of the recordable area where the present disk state data is most recently recorded (column 7, line 65 to column 8, line 25).

3. Claims 1, 8, 15, 17, 19, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukushima et al. (US 2001/0036136; cited in IDS).

Regarding claim 1:

Fukushima discloses:

An optical information storage medium (Fig. 1, 2), comprising:

a user data area (Fig. 1: 105); and

an area other than the user data area, comprising:

a reproduction-only area (Fig. 2: 202); and

a recordable area (Fig. 2: 204) wherein new data about a disk state is recorded in the recordable area if a recording of user data is completed (in Fukushima, paragraph 204, new data about a disk state is recorded in the recordable area every time new data is recorded: since recording involves both starting and stopping, new data is recorded for every time recording is stopped).

Regarding claim 15:

Fukushima discloses wherein the recordable area comprises:

an optimum power control zone to record data for optimum power control (Fig. 4: 409);

a disk zone to record data about the disk states (this could be any part of all of Fig. 4); and

a drive zone to record drive-related data (Fig. 4: 408).

Regarding claims 8 and 17:

These are method claims corresponding to claims 1 and 15 and are similarly rejected.

Regarding claims 19 and 25:

All elements positively recited have already been discussed with regards to claims 1 and 15.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 16, 18, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima et al.

Regarding claim 16:

Fukushima discloses an optical storage medium as described above.

Fukushima does not disclose "wherein each of the disk zone and the drive zone is comprised of 1000 or more physical clusters."

It would have been obvious to one of ordinary skill in the art to include in Fukushima wherein each of the disk zone and the drive zone is comprised of 1000 or more physical clusters.

The motivation would have been optimization in the course of routine engineering of the disk and drive zone. Moreover, absent a showing of criticality, i.e., unobvious or unexpected results, the relationship as set forth in claim 16 is considered to be within the level of ordinary skill in the art.

Additionally, the law is replete with cases in which the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range(s); see In re Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions; see Gardner v. TEC Systems, Inc., 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

Regarding claim 18:

This is a method claim corresponding to claim 16, and is similarly rejected.

Regarding claim 26:

This is essentially the same as claim 16 and is likewise rejected.

6. Claims 19-21, 24, 25, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Fukushima.

Regarding claim 19:

Kondo discloses an optical information storage medium as discussed above.

Kondo does not disclose:

an optimum power control zone to record data for optimal power control; and

a drive zone to record drive-related data.

Fukushima discloses an optimum power control zone to record data for optimal power control and a drive zone to record drive-related data (Fig. 4).

It would have been obvious to include in Kondo an optimum power control zone to record data for optimal power control and a drive zone to record drive-related data, as taught by Fukushima.

The motivation would have been to obtain more appropriate recording and reproducing conditions (Fukushima paragraph 85).

Regarding claims 20-21:

Kondo discloses wherein data about the disc space comprises an address of an area where the last user data has been recorded, and data representing whether additional recording is possible after the user data is recorded (discussed in earlier rejections).

Fukushima teaches the optimum power control data and drive information as discussed above. Fukushima does not teach recording the address of these two areas.

However, it is not necessary for Fukushima to teach this, because it is already inherent to Kondo. Therefore, given Kondo in view of Fukushima it would have been obvious to one of ordinary skill in the art to record an address of an area containing new optimum power control data and an address of an area where the last drive information has been recorded.

The rationale is as follows: Kondo records the address of the user data in order to speed up access to it. When more data (the power control data and the drive

information) is added to Kondo, it is logical for Kondo to record the address of it as well for the same reasons.

Regarding claim 24:

Kondo discloses all elements of this claim as discussed in the 102 rejection as anticipated by Kondo above. However, Kondo in view of Fukushima discloses an alternative interpretation of the claim language.

In Kondo in view of Fukushima data about the disk state is updated if a recording of user data is completed (discussed above), and updated data about the disk state is recorded in an area different from the predetermined area (in Kondo in view of Fukushima addresses of disk state information are written in the predetermined area, and disk state information is written in an area different from the predetermined area).

Regarding claims 25 and 27:

These claims are similar to claims 19-21 and are rejected for the same reasons.

Response to Arguments

7. Applicant's arguments filed December 11th, 2006 have been fully considered but they are not persuasive.

First, the Examiner notes that all of Applicant's arguments appear to be based on the claims before the amendment filed December 11th, 2006 (the amendment filed with Applicant's arguments). Applicant, for example, refers to when "recording of user data is stopped" (page 8), but the claims now read "recording of user data is completed." Applicant makes no mention of other changes made in the amendment: see, for example, claim 22, which has been almost entirely rewritten.

Since Applicant's arguments do not correspond to any features of the amended claims, they are on their face not persuasive. However, since Applicant may believe that some of their arguments still apply to the amended claims, for thoroughness each argument will be specifically discussed.

Applicant first argues (pages 8-10) that Kondo does not disclose wherein "new data about a disk state is recorded in the recordable area if a recording of user data is stopped." Again, the claims no longer have this limitation, but for the purposes of this argument the Examiner presumes that "completed" and "stopped" are synonymous.

Applicant's argument appears to be that although Kondo stores position information in the position information memory section 50, this does not meet the claim.

Kondo does not just store information position in the position information memory section 50. Kondo also writes the position information to a predetermined area of the disk. Kondo discloses this in, for example, column 7, line 15 to column 8, line 25.

Here, Kondo discloses that a recording can be performed program by program separately with interruption (the recording of one program, then, corresponds to when recording is "completed" or "stopped.") Kondo goes on to disclose that when recording in this manner, position information "is written at a position inside of the lead-in area of the optical disc 1 by the recording control means 5." In other words, position information is stored in the memory section 50, but when a program is completed (what Kondo considers an interruption), the position information is written to the optical disk. Therefore, Kondo discloses "a recordable area wherein new data about a disk state is

recorded in the recordable area if a recording of user data is completed," as required by the claim.

Applicant next argues (pages 10-11) that Fukushima does not anticipate the claims. Applicant's argument appears to be based on the theory that the drive information disclosed by Fukushima does not correspond to Applicant's "data about a disk state" (as argued in the last paragraph of page 10), and is in fact completely different from it.

Applicant's argument appears to be based on the premise that Applicant's disc state data contains the addresses of various other areas on the disc, and that Fukushima's does not. However, Applicant has not claimed this feature in the claims rejected as anticipated by Fukushima. There may be differences between Applicant's disk state data and the disk state data of Fukushima, but as these differences are not claimed, they are not relevant to the rejection.

Finally (page 11), Applicant argues that the rejection over Kondo in view of Fukushima is not valid for the same reasons Applicant separately applied against Kondo and Fukushima earlier. Since those arguments were not found to be persuasive, neither has this one.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lamb whose telephone number is (572) 272-5264. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CRL 2/22/07

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